

# Stormwater Pollution Prevention

## Pollution Sources

When it rains, stormwater can pick up pollutants and sediments from surfaces such as parking lots, roofs, streets, sidewalks and construction sites. These pollutants and sediment flow directly to streams, lakes and Puget Sound. Stormwater regulations require businesses to take steps to control the volume of runoff from their sites and to make sure that the stormwater is not polluted when it enters the City's drainage system. Businesses can accomplish this by implementing "source control" measures that not only prevent pollution, but can prevent expensive treatment and maintenance expenses as well.

## Requirements for All Businesses

Seattle's Stormwater Code requires certain structural source control measures for new construction of sites involving high-risk activities. However, all Seattle businesses who conduct these same high risk activities are required to implement the basic "good housekeeping practices" listed below and on the reverse side, as well as the operational source controls listed in the code.

### Maintain Drainage Control Systems

Maintain drainage facilities such as catch basins, oil/water separators, stormwater vaults and other systems on a regular basis to prevent them from failing. Without adequate maintenance, sediment and other debris quickly clog drainage facilities, reducing their ability to regulate and treat stormwater runoff.

### Identify and Eliminate Illicit Connections to Storm Drains

Toilets, sinks, appliances, showers, shop floors and industrial process drains should not be connected to the storm drain system. These connections send pollutants such as oxygen-depleting materials, heavy metals, high temperature water, toxic organic compounds, nutrients and pathogens to the storm drain system and nearby waterways.

### Street, Driveway, Parking Lot and Sidewalk Maintenance

Regularly sweeping paved areas and removing waste materials helps keep these areas clean. Inspecting and cleaning gutters, drains and catch basins is also very important. Stormwater runoff from these areas contains oil and grease from automobiles, nutrients, litter, leaf debris, weed killer and de-icing products.

## Drainage Systems

*Storm drains are the grated openings you see along curbs and in streets and parking lots. But where the water goes from there depends on what part of Seattle you are in. There are three types of drainage systems within the City of Seattle and yet the inlet for these stormwater systems all look the same. Call Resource Venture to find out which system your property drains to.*

**Storm Drain System:** *The storm drain system was built to prevent flooding by collecting and transporting rain, or stormwater, away from urban areas. Any residue or debris on pavement flows into the storm drain system and goes directly into our lakes, rivers, creeks and Puget Sound, without treatment.*

**Combined Sewer System:** *The combined system carries both sanitary sewage and stormwater runoff in a single pipe to a treatment facility. The water is treated before it's discharged into Puget Sound; however, during heavy rainfall, when the combined sewers reach their capacity, the excess stormwater and untreated sewage overflow into Puget Sound.*

**Sanitary Sewer System:** *The sanitary sewer carries waste water and sewage from internal floor drains, toilets and sinks in homes and businesses to a treatment facility. The water is treated before it is discharged into Puget Sound.*



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## High-Risk Activities

The Code identifies eight activities that pose a high risk of polluting stormwater. Businesses whose operations involve any of these activities are required to implement specific operational source control measures — and spill prevention measures — unless their sites drain only to the public combined sewer system.

**Fueling Operations:** Transferring fuel into mobile vehicles or equipment at permanent stations (such as gas stations), temporary stations (such as construction sites) and mobile fueling stations (such as mobile tank trucks).

*Example Best Management Practice (BMP): Develop and implement a spill clean up and response plan and train employees.*

### **Washing and Cleaning Vehicles, Equipment & Buildings:**

Mobile vehicle steam cleaning, washing vehicles at commercial car washes and permanent parking facilities (rental car lots and fleet lots), washing tools or equipment outside, outdoor cleaning of commercial cooking equipment, washing the outside of buildings and mobile interior building cleaning.

*Example BMP: Temporarily block off storm drains and collect and dispose of all wash water to the sanitary sewer with prior approval.*

**Loading and Unloading Liquids or Solid Materials by Truck or Rail:** Transferring non-containerized bulk liquids from truck or rail and loading and unloading materials at a commercial or industrial loading dock.

*Example BMP: Install and clearly mark emergency shut off valves in case of a spill and provide employee training on how to operate the valves. Train employees in proper transfer procedures to avoid spills.*

**Storing Liquids in Stationary Above-Ground Tanks:** Storing liquids such as chemicals, fertilizers, pesticides, solvents, grease or petroleum products in stationary tanks above the ground.

*Example BMP: Use drip pans and absorbent pads at taps and spigots in case of incidental spills.*

**Storage of Liquids, Food Wastes or Dangerous Wastes in Outside Portable Containers:** Outside storage of vegetable grease, animal grease, other food wastes, used oil, liquid feedstock, cleaning compounds, chemicals, solid waste or dangerous waste.

*Example BMP: Liquids should be stored with tight fitting lids in covered areas to avoid contact with stormwater. The storage area should have secondary containment in case of a spill where, at minimum, 110% of the volume of the largest tank or 10% of the total volume of liquids can be contained.*

**Outside Storage of Non-Containerized Materials, By-Products or Finished Products:** Storing things like non-liquid pesticides or fertilizers, contaminated soil, food products or food wastes, metals, building materials, sand, gravel, road salt and topsoil.

*Example BMP: Store stockpiled materials indoors and away from contact with stormwater. If materials are stored outdoors, cover the stockpile with plastic sheeting or tarps and secure them with sandbags or tires to avoid damage from wind and rain.*

**Outside Manufacturing:** Processing, fabrication and maintenance or repair of vehicles and equipment. Other examples include sand blasting, painting, coating or finishing of vehicles, products and equipment.

*Example BMP: Sweep the work area to remove accumulated material on a frequent basis or, if possible, hire a vacuum truck sweeper service to clean the area. Whenever possible, cover the area. Do not wash materials down a drain.*

**Landscaping Construction or Maintenance:** Landscape construction and other “land disturbing” activities; also fertilizer and pesticide application and disposal of yard waste near a public drainage system.

*Example BMP: Place leaves, grass clippings, and other vegetation into yard waste bins or compost them; do not wash or blow materials into the street or storm drains.*

### **Resource Venture Contact Information:**

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